



## What is PhotoActivated Platelet-rich Plasma ?

Platelet-rich Plasma (PRP) is a growth factor rich medium that is developed from your own blood. It is not synthetic.

Research has shown PRP to be effective in the treatment of many musculoskeletal conditions.

Recent developments of PhotoActivation have been successful in increasing the naturally derived anti-inflammatory mediators within PRP.

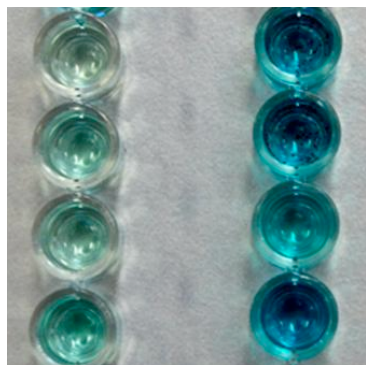


Figure 1. Increased anti-inflammatory mediator post PhotoActivation.  
(Reproduced with the approval of Adistem Pty Ltd)

## What is Involved ?

PRP therapy involves three injections into the injured area over two weeks.

Patients are required to **cease taking anti-inflammatory tablets** one week prior to the PRP procedure.

Patients taking regular aspirin should continue to take this as prescribed by their general practitioner.

Injections are done under sterile conditions, with local anaesthetic and using ultrasound guidance.

On each occasion you will be required to donate blood for generation of the PRP.

Each procedure will take approximately 45 minutes.

It is recommended that you have someone to drive you home after an injection due to some potential residual effects of the local anaesthetic or discomfort from the procedure.

Patients undergoing Platelet-rich Plasma therapy are required to also be actively involved in a supervised rehabilitation program.

## Risks

### Bleeding/Bruising

### Infection

- To reduce chance of infection all injections are done under sterile conditions using ultrasound guidance for accuracy.
- PRP has natural anti-bacterial properties that reduce chance of infection.

### Pain/Discomfort

- Injections can be uncomfortable. Where possible a regional nerve block is performed to improve comfort.
- Some people may experience a vasovagal episode during or post injection where they feel lightheaded and sweaty. This is self limiting.

## Contra-Indications

Whilst very safe, use of platelet-rich plasma is contra-indicated in the following conditions -

- pregnancy
- cancer
- some bleeding disorders



## Evidence

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Level 1 scientific research has shown PRP to be effective in the treatment of various musculoskeletal conditions/injuries. Studies have indicated that PRP achieves better results than cortisone or placebo injections. Results from PRP injection in combination with an eccentric exercise program are also better than doing an exercise program alone.

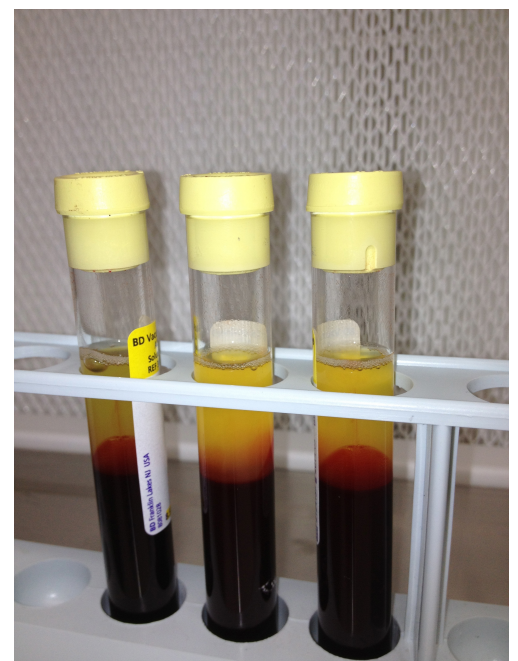
## Research Articles

- Creaney, et al, Growth factor-based therapies provide additional benefit beyond physical therapy in resistant elbow tendinopathy: a prospective, single-blind, randomised trial of autologous blood injections versus platelet-rich plasma injections, Br J Sports Med 2011, Online Publication
- Rabago, et al. A systematic review of four injection therapies for lateral epicondylitis: prolotherapy, polidocanol, whole blood and platelet-rich plasma, Br J Sports Med 2009;43:471-481
- Anitua, et al. New insights into and novel applications for platelet-rich fibrin therapies, Trends in Biotechnology 2006, Vol 24, 5:227-234
- Edwards, et al. Autologous Blood Injections for Refractory Lateral Epicondylitis, The J Hand Surg 2003, Vol 28, 2:272-278
- Spakova, et al. Treatment of Knee Joint Osteoarthritis with Autologous Platelet-Rich Plasma in Comparison with Hyaluronic Acid. Am J Phys Med & Rehab 2012;91(5):411-417

## Cost

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The cost of PhotoActivated Platelet-rich Plasma is ~ \$300. A significant portion of this is covered by medicare. Patients receive a greater rebate (and thus reduced out of pocket) if referred by their regular doctor or another physician. Pensioners have a reduced out of pocket expense.





## Post Injection Instructions

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### Pain Flare

To improve the comfort of the procedure local anaesthetic can be infiltrated at site of the injection. Where possible a regional nerve block is performed.

Some patients may experience a small 'flare' of their pain after the local anaesthetic wears off. This can last between 12 - 72 hours.

It is advised that on return to home that you take 2 paracetamol (panadol) tablets. You will be supplied with a script from your treating doctor for stronger analgesia/pain relief if required.

### Return to Activity/Work

Patients in low impact work roles are expected to need up to 3 days off work due to potential discomfort. Higher impact jobs that require heavy lifting may need longer. It is advised that patients should not return to their regular work/activities until their pain has returned to their pre-injection level of comfort.

### Exercise post Injection

It is advised that patients should re-commence their exercise/strengthening rehabilitation program (physiotherapy guided) when their pain returns to pre-injection baseline levels.

### Physiotherapy/Massage

It may be useful to have range of motion therapy and also soft tissue massage in the immediate week after your injection.